

CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

CONFIDENTIAL

COUNTRY Czechoslovakia / Germany (Soviet Zone)

SUBJECT Current Manufacture of Pittler Machines by Skoda in Czechoslovakia

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[redacted] photostatic copies of brochures describing five of the Pittler machines that are currently being manufactured by Skoda. [redacted] all of these machines are 1947 designs, but they are copies of the original Pittler. Each brochure contains a photo of the machine, the main dimensions and other characteristics including equipment and attachments. The five machines are:

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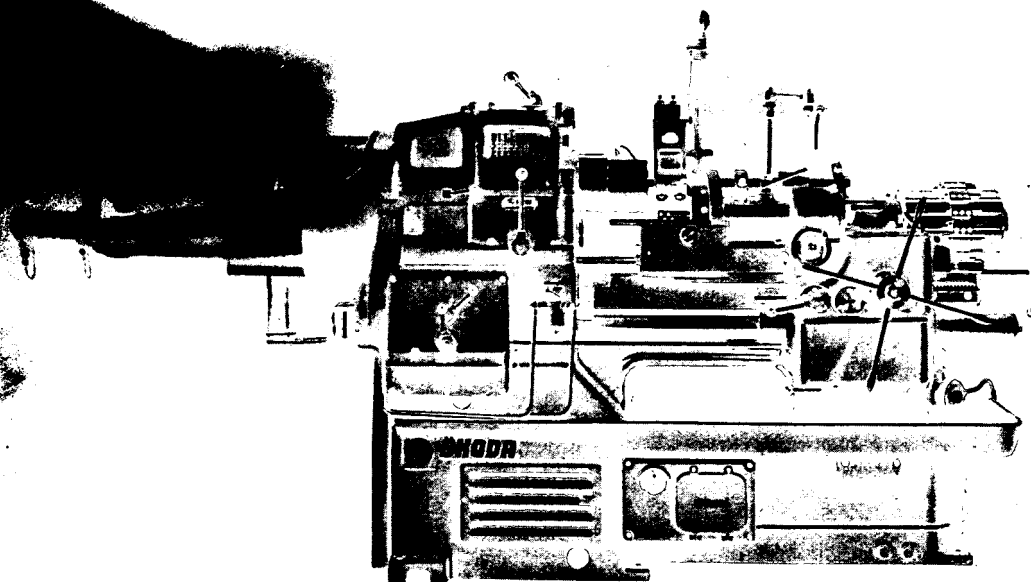
Skoda Turret Lathe #R 47
Skoda Turret Lathe #R 36
Skoda Automatic Lathe # A20
Skoda Automatic Lathe # A12
Skoda Automatic Lathe # A40

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Bulletin No. 460.116



MAIN DIMENSIONS:

Capacities:	Max. diameter held:	metric	english
	for bar work	45 mm	1.3 4"
	for chuck work	140—230* mm	5.1 2"—9.1 16"*
	*) for works where few tools are needed		
	Max. swing over bed (without chasing device)	470 mm	18.1 2"
Turret head:	Number . boring of tool holes	7 . 25 mm	7 . 1"
		7 . 40 mm	7 . 1.9 16"
	(long hole, combined)	2 . 40 mm	2 . 1.9 16"
	Max. travel of turret	460 mm	18.1 8"
Spindle speeds:	70 speeds (forward and backward) divided in 7 speed bands adjustable by means of change gears supplied as standard equipment:		
	I. speed band (10 speeds) r. p. m.	22— 500	
	II. speed band (10 speeds) r. p. m.	28— 630	
	III. speed band (10 speeds) r. p. m.	35— 800	
	IV. speed band (10 speeds) r. p. m.	45—1000	
	V. speed band (10 speeds) r. p. m.	56—1250	
	VI. speed band (10 speeds) r. p. m.	71—1600	
	VII. speed band (10 speeds) r. p. m.	90—2000	
Feeds:	9 longitudinal feeds	0,056—0,90 mm rev.	.002—.036 in. rev.
	9 facing feeds	0,028—0,45 mm rev.	.001—.018 in. rev.
Driving motor (3-pole reversible):			
	Nominal rating kW	8—6—3,5	
Floor space required	3060 . 980 mm	10'1 1/2" . 3'2 1/2"	
Weight of the machine with standard equipment	2000 kg	4400 lb	

TURRET LATHES ŠKODA R 47

The Turret Lathes ŠKODA R 47 have been designed for economic utilization of carbide tipped tools. This, together with an easy control, as for instance air-operated bar feed and chucking, makes this machines by 100%, on an average more efficient than the formerly built turret lathes Škoda RP 52. The machining times attained with these turret lathes only amount to a fraction of the times hitherto customary. Besides their large efficiency these machines are very accurate and safe in operation.

Standard equipment (supplied with the machine and included in its price):

- Electric drive equipment (3 step reversible motor and cooling pump motor together with operating and protection switches). State voltage and sort of current when placing the order.
- Coolant equipment (electrically driven centrifugal pump with piping).
- Air cylinder with supports, air control-cock and pipeline inside the machine (for compressed air of 5—6 atm.)
- Change gears for adjustment of the required speed band (5 pairs for R 47).
- 3 facing stops (1 central and 2 lateral).
- 3 guards (1 against splash and 2 against chips).
- 1 set machine wrenches and spanners.
- 6 operating charts attached to the machine.
- Operator's handbook (covering instructions for erection, operation and maintenance).

Extras (supplied on explicit order at an extra charge):

- I Air chuck for bar work (incl. 1 jaw *71345).
- II Air chuck for insertion work (incl. 1 jaw *77200).
- III Air-operated 3-jaw chuck (incl. 3 jaws 78132, further 3 - 78232 and 3 - 79132).
- IV Air-operated 2-jaw chuck (incl. 2 jaws 81032).
- V Air control valve with pressure gauge (necessary only when machining thin-walled work).
- VI Pneumatic stock feed attachment (incl. jaws *74345).
- VII Compressor for producing compressed air.
- VIII Chasing device.
- IX Swinging arm for die heads (only in supplement to pos. VIII).
- X Plunge cut attachment.
- XI Knurling device (supplied as a supplement to pos. X).
- XII Longitudinal copying device.
- XIII Transverse copying device.
- XIV Longitudinal feed stop, drum type.
- XV Longitudinal hinged stop.
- XVI Further facing stops (see special tool catalogue).
- XVII Further turret head.

Standard sets of tools:

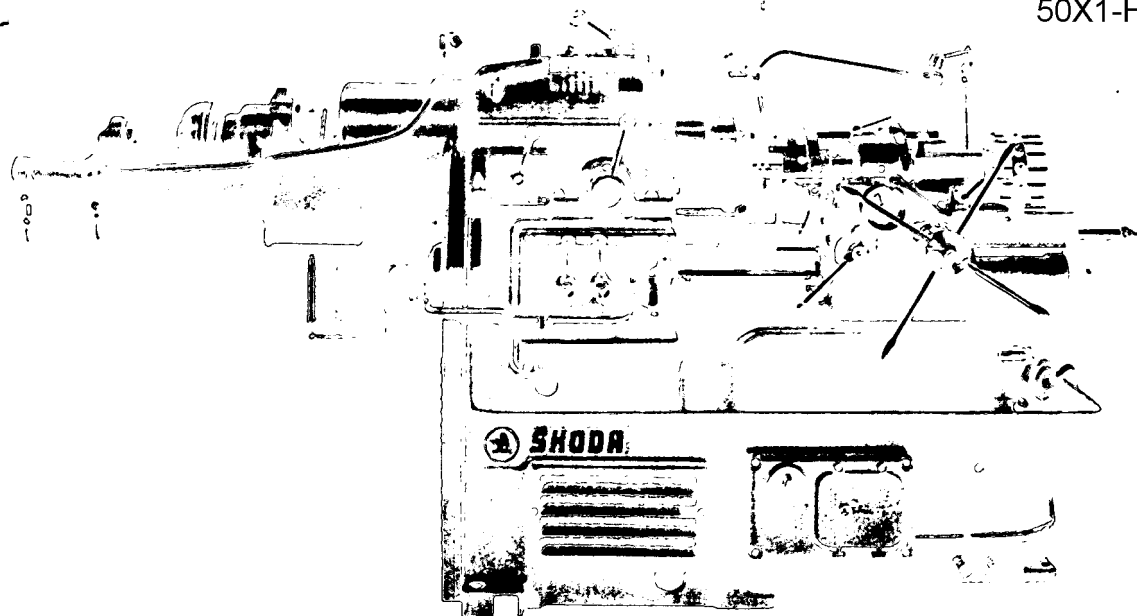
- XVIII Cutting and chucking tools for turret head.
- XVIIIa Chucking tools for air chuck I and stock feed attachment VI.
- XVIIIb Chucking tools for air chuck II.
- XX Individual chucking and cutting tools (see special tool catalogue).
- XXI Electric lamp to the machine.
- XXII Tooling method for the desired type of work (will be drawn up on account of the filled out questionnaire which kindly apply for).

*) If not otherwise desired.

Dimensions, weights and illustrations are not binding in details.

**ŠKODA WORKS, PLZEŇ;
HEAD OFFICE PRAGUE, CZECHOSLOVAKIA**

50X1-HUM



MAIN DIMENSIONS:

Capacities:	Max. diameter held:	metric	english
	for bar work	34 mm	1.5 16"
	for chuck work	110—180* mm	4.5 16—7.1 16"*
	*) for works where few tools are needed		
	Max. swing over bed (without chasing device)	360 mm	14.3 16"
Turret head:	Number × boring of tool holes	7 × 20 mm	7 × 3 4"
		7 × 30 mm	7 × 1.3 16"
	(long hole, combined)	2 × 35 mm	2 × 1.3 8"
	Max. travel of turret	410 mm	16.1 8"
Spindle speeds:	50 speeds (forward and backward) divided in 5 speed bands adjustable by means of change gears supplied as standard equipment:		
	I. speed band (10 speeds) r. p. m.	56—1250	
	II. speed band (10 speeds) r. p. m.	71—1600	
	III. speed band (10 speeds) r. p. m.	90—2000	
	IV. speed band (10 speeds) r. p. m.	125—2500	
	V. speed band (10 speeds) r. p. m.	140—3150	
Feeds:	6 longitudinal feeds	0,056—0,56 mm rev.	.002—.02 in rev.
	6 facing feeds	0,028—0,28 mm rev.	.001—.01 in rev.
Driving motor (3-pole reversible):			
	Nominal rating kW	5,5—4—2,6	
Floor space required		2550 × 850 mm	8'4" × 2'9 1/2"
Weight of the machine with standard equipment		1300 kg	2860 lb

The Turret Lathes ŠKODA R 36 have been designed for economic utilization of carbide tipped tools. This, together with an easy control, as for instance air-operated bar feed and chucking, makes this machines by 100% on an average more efficient than the formerly built turret lathes Škoda RP 36. The machining times attained with these turret lathes only amount to a fraction of the times hitherto customary. Besides their large efficiency these machines are very accurate and safe in operation.

Standard equipment (supplied with the machine and included in its price):

- Electric drive equipment (3 step reversible motor and cooling pump motor together with operating and protection switches). State voltage and sort of current when placing the order.
- Coolant equipment (electrically driven centrifugal pump with piping).
- Air cylinder with supports, air control-cock and pipeline inside the machine (for compressed air of 5—6 atm.).
- Change gears for adjustment of the required speed band (3 pairs for R 36).
- 3 facing stops (1 central and 2 lateral).
- 3 guards (1 against splash and 2 against chips).
- 1 set machine wrenches and spanners.
- 6 operating charts attached to the machine.
- Operator's handbook (covering instructions for erection, operation and maintenance).

Extras (supplied on explicit order at an extra charge):

- I Air chuck for bar work (incl. 1 x jaws *71134).
- II Air chuck for insertion work (incl. 1 x jaws *77100).
- III Air-operated 3-jaw chuck (incl. 3 x jaws 78102, further 3 x 78202 and 3 x 79102).
- IV Air-operated 2-jaw chuck (incl. 2 x jaws 81002).
- V Air control valve with pressure gauge (necessary only when machining thin-walled work).
- VI Pneumatic stock feed attachment (incl. jaws *74134).
- VII Compressor for producing compressed air.
- VIII Chasing device.
- IX Swinging arm for die heads (only in supplement to pos. VIII).
- X Plunge cut attachment.
- XI Knurling device (supplied as a supplement to pos. X).
- XII Longitudinal copying device.
- XIII Transverse copying device.
- XIV Longitudinal feed stop, drum type.
- XV Longitudinal hinged stop.
- XVI Further facing stops (see special tool catalogue).
- XVII Further turret head.

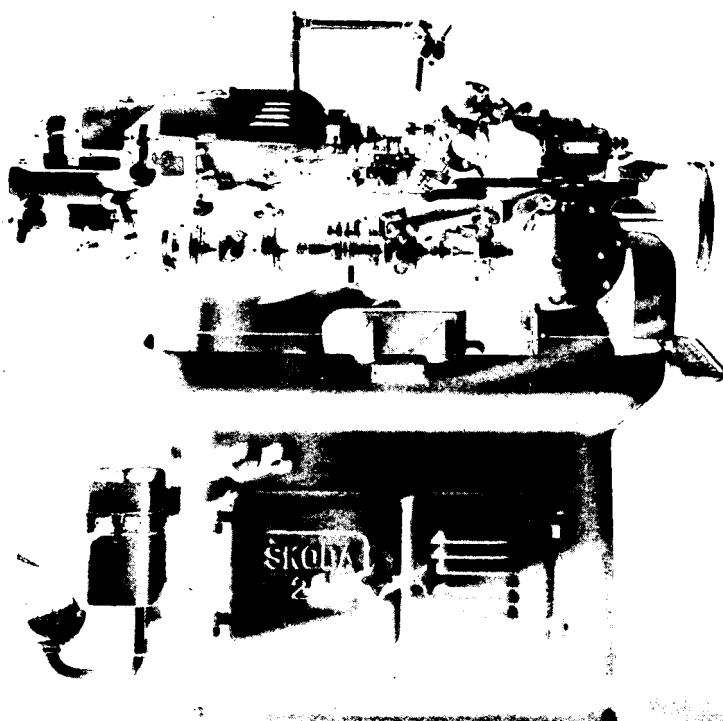
Standard sets of tools:

- XVIII Cutting and chucking tools for turret head.
- XVIIIa Chucking tools for air chuck I and stock feed attachment VI.
- XVIIIb Chucking tools for air chuck II.
- XX Individual chucking and cutting tools (see special tool catalogue).
- XXI Electric lamp to the machine.
- XXII Tooling method for the desired type of work (will be drawn up on account of the filled out questionnaire which kindly apply for).

*) If not otherwise desired.

Dimensions, weights and illustrations are not binding in details.

ŠKODA WORKS, PLZEŇ;



MAIN DIMENSIONS

		metric	english
Capacities:	Chuck capacity: normal (without outside bar feeding)	20 mm	25/32
	Chuck capacity: oversized (with outside bar feeding)	26 mm	1 1/4
	Max. bar feed length	80 mm	3 1/8
	Max. dia. of thread cut in steel	14 mm	1 1/8
	Max. dia. of thread cut in brass	12 mm	9/16
	Cycle time: with standard equipment	2.9	300
	Min. distance between turret and spindle nose	60 mm	2 3/8
	Max. stroke of turret (turning length)	60 mm	2 3/8
Spindle:	Max. depth of drilling when turret indexed in rear position	60 mm	2 3/8
	when turret indexed in front position	37 mm	1 7/16
	11 turning speeds in the range of	r.p.m.	470 - 3130
	66 threading speeds in the range of	r.p.m.	55 - 1770
Ratios of turning to threading speed:	normal	1.5 - 1	2.4 - 1
	with extra equipment	4 - 1	6 - 1
Turret:	Dia. of 6 holes for tools (either normal or on request)	29 mm	1 1/4
	Max. distance of tool end to centre of turret	115 mm	4 1/2
Cross slides:	Max. movement	45 mm	1 3/8
Motor output		CV	2.2
Floor space of the machine without bar stock supports		1.95 m x 0.7	5'1" x 2'4"
Weight of the machine with normal equipment		1100 kg	2420 lb

ŠKODA AUTOMATICS A20

The ŠKODA automatics have been designed with regard to the experiences acquired in our own works. They are built to meet all demands of a non-stop-service. The machines include the driving mechanism for the various attachments (delivered as extras), so that these can be joined to the machine additionally without being necessary to alter the machine.

Standard equipment:

- Attachment for left hand threads.
- Two-step drive for the high speed drilling attachment.
- Driving mechanism for the slotting attachment.
- Driving mechanism for cross drilling attachment for cut-off pieces.
- Driving mechanism for cross drilling attachment on the cross slide.
- Driving mechanism for nut tapping attachment.
- Driving mechanism for the chip conveyor.
- 2 bar stands with bar supports (without bar guiding tube).
- 1 set of speed change gears.
- 1 set of gears for the worm gearing.
- Speed and change gear charts.
- 1 chuck collet Uag 20 for 25 32" bar dia.
- 1 feeding finger Uah 20 for 25 32" bar dia.
- 1 guiding collet Uaj 20 for 11 16" bar dia.
- 1 cam for operating the swing stop.
- 1 blank cam for turret.
- 2 cam blanks for cross slides.
- 1 tracing and drilling template for the cam of the turret (1 piece for each order, if not otherwise required).
- 1 tracing and drilling template for the cams of both cross slides (1 piece for each order, if not otherwise required).
- 1 template for rising and declining portions of cams (1 piece made of cellon for each order, if not else required; steel template on explicit order).
- 1 set of wrenches and spanners.
- 1 grease gun, 1 oiling can.
- 1 tray for machined work pieces.
- 2 splash guards.
- 1 set of spare parts (chain links, 2 chucking fingers, 2 pushers, stops, shearing pins, springs and collar pins).
- Flange motor with starter (voltage and sort of current are to be stated when placing the order).

Extras (supplied on explicit order and charged extra):

ATTACHMENTS:

- I Third cross slide.
- II Silent stock tube.
- III Outside bar feeding.
- IV Manual bar inserting.
- V High speed drilling for turret.
- VI Pick-up arm (necessary for pos. VII, VIII, IX, X).
- VII Slotting attachment.
- VIII Cross drilling (for cut off pieces).
- IX Rear end burring.
- X Nut tapping.
- XI Thread chasing.
- XII Swing stop.
- XIII Double indexing to turret.
- XIV Spindle brake (necessary for pos. XI).
- XV Cross drilling on the cross slide.
- XVI Bar guiding tube.
- XVII Working place lamp.
- XVIII Cam milling device.
- XIX Cam tracing and testing device.

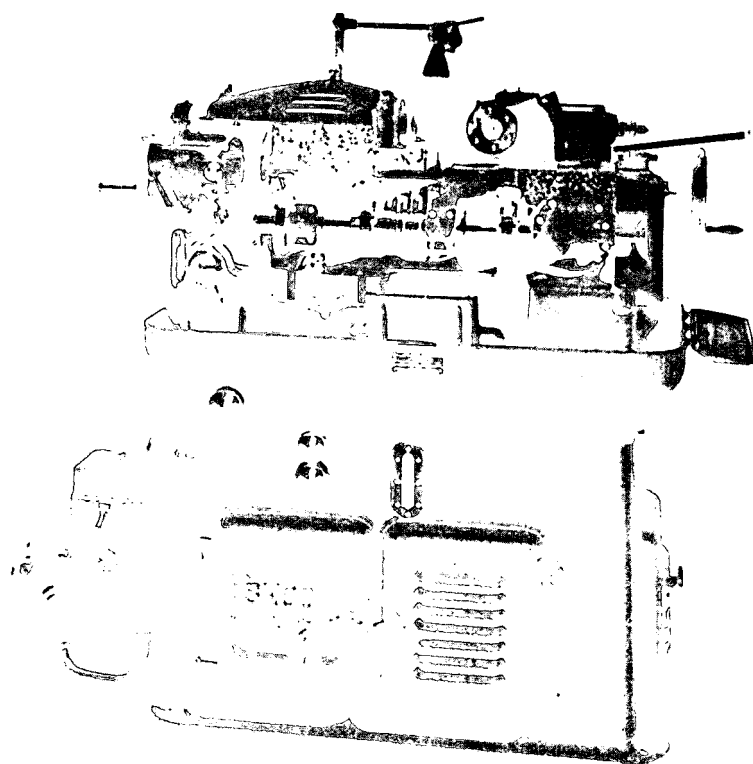
Cam blanks, collets, bar feeding fingers, guiding collets, tool holders and other tools see special catalogue.

Dimensions and weights are subject to change without notice.

**ŠKODA WORKS LTD., PLZEŇ;
HEAD OFFICE PRAGUE, CZECHOSLOVAKIA**

50X1-HUM

Bulletin 460,059



MAIN DIMENSIONS

		metric	english
Capacities:	Chuck capacity: normal (without outside bar feeding)	12 mm	15 32"
	Chuck capacity: oversized (with outside bar feeding)	16 mm	5 8"
	Max. bar feed length	60 mm	2.11 32"
	Max. dia. of thread cut in steel	10 mm	5 16"
	Max. dia. of thread cut in brass	12 mm	25 64"
	Cycle time: with standard equipment sec.	1—170	
	Min. distance between turret and spindle nose	50 mm	2"
	Max. stroke of turret (turning length)	50 mm	2"
Spindle:	Max. depth of drilling: when turret indexed in rear position	50 mm	2"
	when turret indexed in front position	32 mm	1.1 4"
	11 turning speeds in the range of r. p. m.	600—6000	
	66 threading speeds in the range of r. p. m.	75—3000	
Turret:	Ratios of turning to threading speed: normal	3 : 1 5 : 1 8 : 1	
	with extra equipment	2 : 1 4 : 1 6 : 1	
Cross slides:	Dia. of 6 holes for tools: either normal	20 mm	
	or on request		3 4"
Motor output	Max. distance of tool end to centre of turret	120 mm	4.3 4"
	Max. movement.	27 mm	1.1 16"
Floor space of the machine without bar stock supports	Max. movement.	27 mm	1.1 16"
	Motor output kW	2.55	
Weight of the machine with normal equipment	Max. movement.	27 mm	1.1 16"
	Motor output kW	2.55	

ŠKODA AUTOMATICS A12

The ŠKODA automatics have been designed with regard to the experiences acquired in our own works. They are built to meet all demands of a non-stop-service. The machines include the driving mechanism for the various attachments (delivered as extras), so that these can be joined to the machine additionally without being necessary to dismount it.

Standard equipment:

Attachment for left hand threads.
 Two-step drive for the high speed drilling attachment.
 Driving mechanism for the slotting attachment.
 Driving mechanism for cross drilling attachment for cut-off pieces.
 Driving mechanism for cross drilling attachment on the cross slide.
 Driving mechanism for nut tapping attachment.
 Driving mechanism for the chip conveyor.
 2 bar stands with bar supports (without bar guiding tube).
 1 set of speed change gears.
 1 set of gears for the worm gearing.
 Speed and change gear charts.
 1 chuck collet Uag 12 for 1 1/2" bar dia.
 1 feeding finger Uah 12 for 1 1/2" bar dia.
 1 guiding collet Uaj 12 for 1 1/2" bar dia.
 1 cam for operating the swing stop.
 1 blank cam for turret.
 2 cam blanks for cross slides.
 1 tracing and drilling template for the cam of the turret (1 piece for each order, if not otherwise required).
 1 tracing and drilling template for the cams of both cross slides (1 piece for each order, if not otherwise required).
 1 template for rising and declining portions of cams (1 piece made of cellon for each order, if not else required; steel template on explicit order).
 1 set of wrenches and spanners.
 1 grease gun, 1 oiling can.
 1 tray for machined work pieces.
 2 splash guards.
 1 set of spare parts (chain links, 2 chucking fingers, 2 pushers, stops, shearing pins, springs and collar pins).
 Flange motor with starter (voltage and sort of current are to be stated when placing the order).

Extras (supplied on explicit order and charged extra):

ATTACHMENTS:

- I Third cross slide.
- II Silent stock tube.
- III Outside bar feeding.
- IV Manual bar inserting.
- V High speed drilling for turret.
- VI Pick-up arm (necessary for pos. VII, VIII, IX, X).
- VII Slotting attachment.
- VIII Cross drilling (for cut-off pieces).
- IX Rear end burring.
- X Nut tapping.
- XI Thread chasing.
- XII Swing stop.
- XIII Double indexing to turret.
- XIV Spindle brake (necessary for pos. XV).
- XV Cross drilling on the cross slide.
- XVI Bar guiding tube.
- XVII Working place lamp.
- XVIII Cam milling device.
- XIX Cam tracing and testing device.

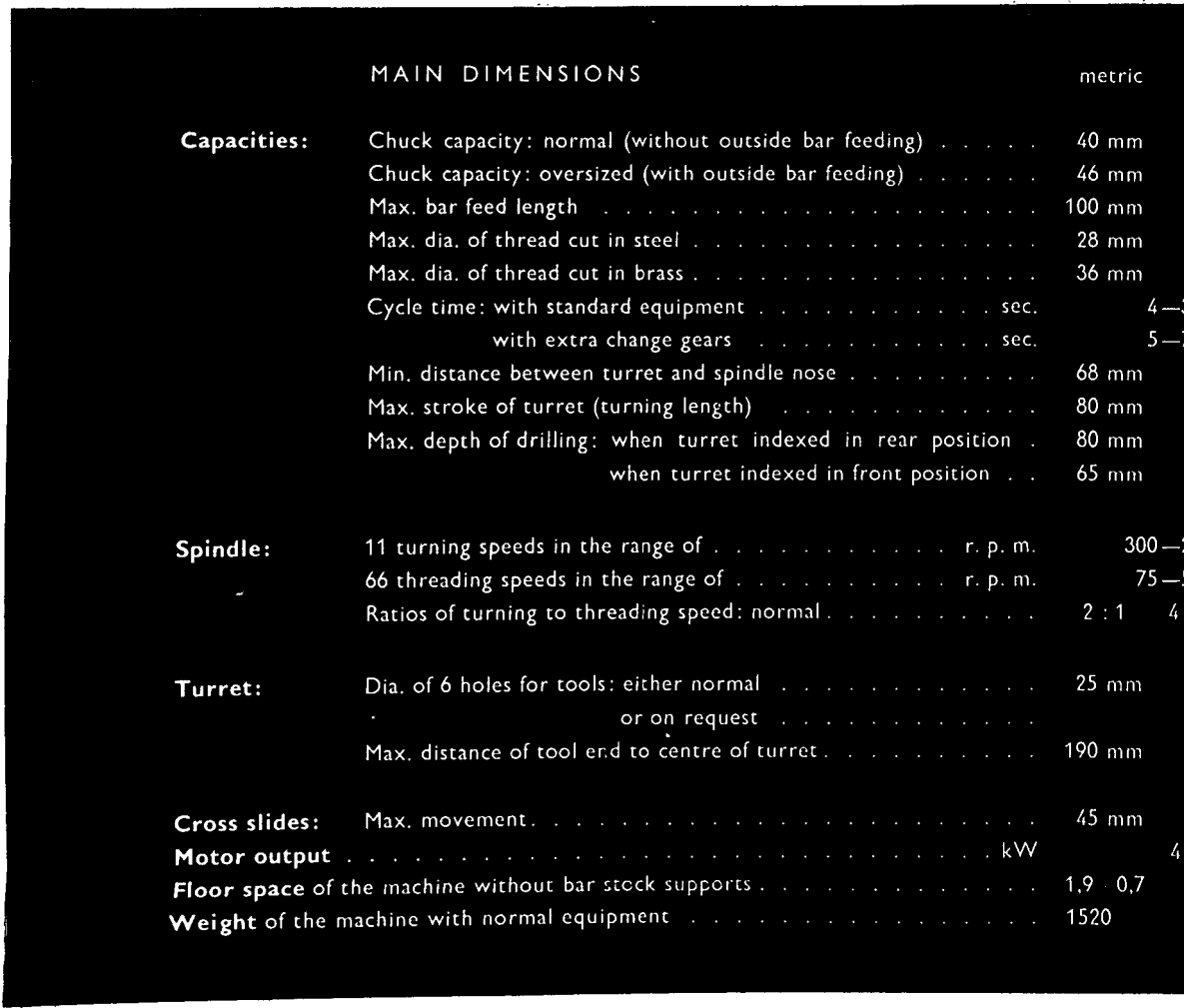
Cam blanks, collets, bar feeding fingers, guiding collets, tool holders and other tools see special catalogue.

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Dimensions and weights are subject to change without notice.

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Bulletin 460.065



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The ŠKODA automatics have been designed with regard to the experiences acquired in our own works. They are built to meet all demands of a non-stop-service. The machines include the driving mechanism for the various attachments (delivered as extras), so that these can be joined to the machine additionally without being necessary to dismount it.

Standard equipment:

Attachment for left hand threads.
Two-step drive for the high speed drilling attachment.
Driving mechanism for the slotting attachment.
Driving mechanism for cross drilling attachment for cut-off pieces.
Driving mechanism for cross drilling attachment on the cross slide.
Driving mechanism for nut tapping attachment.
Driving mechanism for the chip conveyor.
2 bar stands with bar supports (without bar guiding tube).
1 set of speed change gears.
1 set of gears for the worm gearing.
Speed and change gear charts.
1 chuck collet Uag 40 for 1. 9 16" bar dia.
1 feeding finger Uah 40 for 1. 9 16" bar dia.
1 guiding collet Uaj 40 for 1. 7 16" bar dia.
1 cam for operating the swing stop.
1 blank cam for turret.
2 cam blanks for cross slides.
1 tracing and drilling template for the cam of the turret (1 piece for each order, if not otherwise required).
1 tracing and drilling template for the cams of both cross slides (1 piece for each order, if not otherwise required).
1 template for rising and declining portions of cams (1 piece made of cellon for each order, if not else required; steel template on explicate order).
1 set of wrenches and spanners.
1 grease gun, 1 oiling can.
1 tray for machined work pieces.
2 splash guards.
1 set of spare parts (chain links, 2 chucking fingers, 2 pushers, stops, shearing pins, springs and collar pins).
Flange motor with starter (voltage and sort of current are to be stated when placing the order).

Extras (supplied on explicate order and charged extra):

ATTACHMENTS:

I Third cross slide.
II Silent stock tube.
III Outside bar feeding.
IV Manual bar inserting.
V High speed drilling for turret.
VI Pick-up arm (necessary for pos. VII, VIII, IX, X).
VII Slotting attachment.
VIII Cross drilling (for cut-off pieces).
IX Rear end burring.
X —
XI Thread chasing.
XII Swing stop.
XIII Double indexing to turret.
XIV Spindle brake (necessary for pos. XV).
XV Cross drilling on the cross slide.
XVI Bar guiding tube.
XVII Working place lamp.
XVIII Cam milling device.
XIX Cam tracing and testing device.

Cam blanks, collets, bar feeding fingers, guiding collets, tool holders and other tools see special catalogue.

Dimensions and weights are subject to change without notice.

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